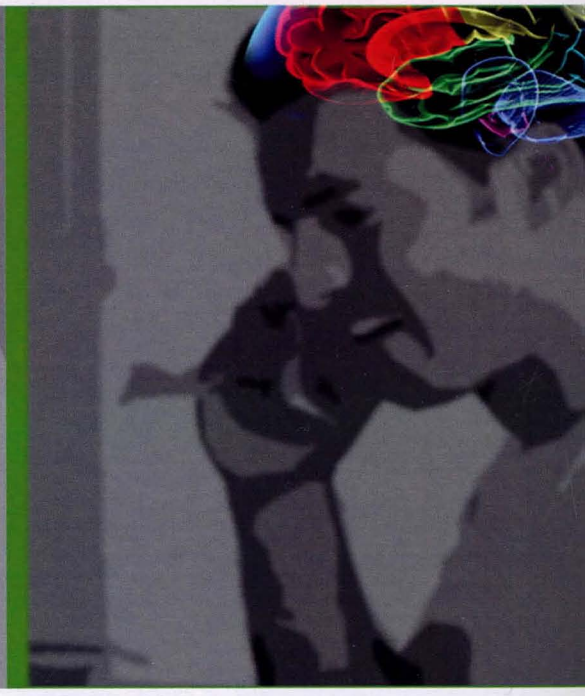
UNDERSTANDING BRAIN DEVELOPMENTAL DISORDER BASED ON EEG IN SOFT COMPUTING APPROACH

Abdul Wahab Abdul Rahman



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PRINCIPLE COMPONENT ANALYSIS FOR DETECTING AUTISM DURING MOTOR MOVEMENT

ABDUL WAHAB ABDUL RAHMAN AND WAFAA KHAZAAL

12.0 Abstract

Autism is often diagnosed based on the DSM-IV standard (American associated 2000). This diagnosis often depends on behavioral test. Many researches revealed that individuals with autism have abnormal brain signals different from typical persons. This difference in signals is slight that it is often difficult to distinguish from the normal. This study investigates and compares classification process for autism in open-eyed tasks and motor movement by using Principle Component Analysis (PCA) and Time-frequency domain. Results show that in motor task, the proposed method gives accuracy in the range 90-100% for autism and normal children while its difficult to distinguish autism from normal based on open-eyes tasks.